## **EAST Search History**

## **EAST Search History (Prior Art)**

| Ref#       | Hits   | Search Query   | DBs  | Default<br>Operator | Plurals | Time Stamp          |
|------------|--------|--|--|---------------------|---------|---------------------|
| S1         | 4810   | saiki.in.  | US-PGPUB;<br>USPAT;<br>USOCR; EPO;<br>JPO; DERWENT | OR                  | ON      | 2007/12/19<br>12:27 |
| S2         | 134    | shintoku.in.   | US-PGPUB;<br>USPAT;<br>USOCR; EPO;<br>JPO; DERWENT | OR                  | ON      | 2007/12/14<br>16:52 |
| 33         | 24971  | baba.in.   | US-PGPUB;<br>USPAT;<br>USOCR; EPO;<br>JPO; DERWENT | OR                  | ON      | 2007/12/14<br>16:52 |
| 34         | 1859   | shimo.in.  | US-PGPUB;<br>USPAT;<br>USOCR; EPO;<br>JPO; DERWENT | OR                  | ON      | 2007/12/14<br>16:52 |
| 35         | 10664  | murase.in.   | US-PGPUB;<br>USPAT;<br>USOCR; EPO;<br>JPO; DERWENT | OR                  | ON      | 2007/12/14<br>16:53 |
| 36         | 114390 | yamaguchi.in.  | US-PGPUB;<br>USPAT;<br>USOCR; EPO;<br>JPO; DERWENT | OR                  | ON      | 2007/12/14<br>16:53 |
| S7         | 73359  | yamashita.in.  | US-PGPUB;<br>USPAT;<br>USOCR; EPO;<br>JPO; DERWENT | OR                  | ON      | 2007/12/14<br>16:53 |
| <b>3</b> 8 | 228263 | S1 S2 S3 S4 S5 S6 S7   | US-PGPUB;<br>USPAT;<br>USOCR; EPO;<br>JPO; DERWENT | OR                  | ON      | 2007/12/14<br>16:53 |
| S9         | 20     | S8 and (coating same sliding same binder)  | US-PGPUB;<br>USPAT;<br>USOCR; EPO;<br>JPO; DERWENT | OR                  | ON      | 2007/12/20<br>07:41 |
| S10        | 13     | (("4724251") or ("4626365") or<br>("6500537") or ("20030072969") or<br>("20020039640") or ("6524661")).PN. | US-PGPUB;<br>USPAT;<br>USOCR; EPO;<br>JPO; DERWENT | OR                  | OFF     | 2007/12/14<br>17:09 |
| S11        | 423    | 106/400.ccls.  | US-PGPUB;<br>USPAT;<br>USOCR; EPO;<br>JPO; DERWENT | OR                  | ON      | 2007/12/19<br>12:28 |
| S12        | 191    | 508/108.ccls.  | US-PGPUB;<br>USPAT;<br>USOCR; EPO;<br>JPO; DERWENT | OR                  | ON      | 2007/12/19<br>12:28 |

| S13 | 0    | 252/12,12.2,12.4.∞ls.  | US-PGPUB;<br>USPAT;<br>USOCR; EPO;<br>JPO; DERWENT | OR | ON  | 2007/12/19<br>12:28 |
|-----|------|--|--|----|-----|---------------------|
| S14 | 0    | 252/12.ccls.   | US-PGPUB;<br>USPAT;<br>USOCR; EPO;<br>JPO; DERWENT | OR | ON  | 2007/12/19<br>12:28 |
| S15 | 0    | 252/12.2.ccls.   | US-PGPUB;<br>USPAT;<br>USOCR; EPO;<br>JPO; DERWENT | OR | ON  | 2007/12/19<br>12:28 |
| S16 | 0    | 252/12.4.ccls.   | US-PGPUB;<br>USPAT;<br>USOCR; EPO;<br>JPO; DERWENT | OR | ON  | 2007/12/19<br>12:28 |
| S17 | 0    | 252/25.ccls.   | US-PGPUB;<br>USPAT;<br>USOCR; EPO;<br>JPO; DERWENT | OR | ON  | 2007/12/19<br>12:29 |
| S18 | 493  | 525/104.ccls.  | US-PGPUB;<br>USPAT;<br>USOCR; EPO;<br>JPO; DERWENT | OR | ON  | 2007/12/19<br>12:29 |
| S19 | 205  | 525/180.ccls.  | US-PGPUB;<br>USPAT;<br>USOCR; EPO;<br>JPO; DERWENT | OR | ON  | 2007/12/19<br>12:29 |
| S20 | 735  | 525/184.ccls.  | US-PGPUB;<br>USPAT;<br>USOCR; EPO;<br>JPO; DERWENT | OR | ON  | 2007/12/19<br>12:29 |
| S21 | 1998 | S11 S12 S18 S19 S20  | US-PGPUB;<br>USPAT;<br>USOCR; EPO;<br>JPO; DERWENT | OR | ON  | 2007/12/19<br>12:29 |
| S22 | 131  | S21 and ((coating or (sliding near<br>part)) same ((titanium near oxide) or<br>"TiO.sub.2" or titania or TiO2))  | US-PGPUB;<br>USPAT;<br>USOCR; EPO;<br>JPO; DERWENT | OR | ON  | 2007/12/19<br>12:36 |
| S23 | 108  | S21 and ((coating or (sliding near<br>part)) same ((titanium near oxide) or<br>"TiO.sub.2" or titania or TiO2)) and<br>(resin or polyimide or polyamide)                                   | US-PGPUB;<br>USPAT;<br>USOCR; EPO;<br>JPO; DERWENT | OR | ON  | 2007/12/19<br>12:36 |
| S24 | 52   | S21 and ((coating or (sliding near<br>part)) same ((titanium near oxide) or<br>"TiO.sub.2" or titania or TiO2)) and<br>(polyimide or polyamide)  | US-PGPUB;<br>USPAT;<br>USOCR; EPO;<br>JPO; DERWENT | OR | ON  | 2007/12/19<br>12:36 |
| S25 | 15   | S21 and ((coating or (sliding near<br>part)) same ((titanium near oxide) or<br>"TiO.sub.2" or titania or TiO2)) and<br>(polyimide or polyamide) and ("PTFE"<br>or polytetrafluoroethylene) | US-PGPUB;<br>USPAT;<br>USOCR; EPO;<br>JPO; DERWENT | OR | ON  | 2007/12/19<br>13:44 |
| S26 | 3    | ("6500537").PN.  | US-PGPUB;<br>USPAT;<br>USOCR; EPO;<br>JPO; DERWENT | OR | OFF | 2007/12/19<br>14:07 |

| S27 | 1    | S26 and titanium  | US-PGPUB;<br>USPAT;<br>USOCR; EPO;                 | OR | ON | 2007/12/19<br>12:49 |
|-----|------|---|--|----|----|---------------------|
|     |      |   | JPO; DERWENT                                       |    |    |                     |
| S28 | 1    | S26 and ((coupling near agent) or silnae)   | US-PGPUB;<br>USPAT;<br>USOCR; EPO;<br>JPO; DERWENT | OR | ON | 2007/12/19<br>12:49 |
| S29 | 1    | S26 and ((coupling near agent) or silane)   | US-PGPUB;<br>USPAT;<br>USOCR; EPO;<br>JPO; DERWENT | OR | ON | 2007/12/19<br>12:54 |
| S30 | 1    | S26 and ((coupling near agent) or silane) and (polymer near10 viscosity)  | US-PGPUB;<br>USPAT;<br>USOCR; EPO;<br>JPO; DERWENT | OR | ON | 2007/12/19<br>12:56 |
| S31 | 0    | S26 and ((titanium or titania) near5<br>(content or weight or amount))  | US-PGPUB;<br>USPAT;<br>USOCR; EPO;<br>JPO; DERWENT | OR | ON | 2007/12/19<br>12:56 |
| S32 | 1    | S26 and (((coupling near agent) or silane) near10 (amount or content or weight))  | US-PGPUB;<br>USPAT;<br>USOCR; EPO;<br>JPO; DERWENT | OR | ON | 2007/12/19<br>13:42 |
| S33 | 9098 | (coating or (sliding near parts)) with ("TiO.sub.2" or TiO2 or titania or (titanium near oxide)) with (content or amount or weight)   | US-PGPUB;<br>USPAT;<br>USOCR; EPO;<br>JPO; DERWENT | OR | ON | 2007/12/19<br>13:46 |
| S34 | 9    | (sliding near (part or parts)) with ("TiO.sub.2" or TiO2 or titania or (titanium near oxide)) with (content or amount or weight)  | US-PGPUB;<br>USPAT;<br>USOCR; EPO;<br>JPO; DERWENT | OR | ON | 2007/12/19<br>13:55 |
| S35 | 6    | S25 not pigment   | US-PGPUB;<br>USPAT;<br>USOCR; EPO;<br>JPO; DERWENT | OR | ON | 2007/12/19<br>13:57 |
| S36 | 2887 | (titanium near oxide) same (wear or seizure or smoothness or smooth)  | US-PGPUB;<br>USPAT;<br>USOCR; EPO;<br>JPO; DERWENT | OR | ON | 2007/12/19<br>14:03 |
| S37 | 17   | ((titanium near oxide) same (wear or<br>seizure or smoothness or smooth))<br>and (sliding near (part or parts))   | US-PGPUB;<br>USPAT;<br>USOCR; EPO;<br>JPO; DERWENT | OR | ON | 2007/12/19<br>14:05 |
| S38 | 4    | ((titanium near oxide) same (amount<br>or content or weight) same (wear or<br>seizure or smoothness or smooth))<br>and (sliding near (part or parts))                                 | US-PGPUB;<br>USPAT;<br>USOCR; EPO;<br>JPO; DERWENT | OR | ON | 2007/12/19<br>14:05 |
| S39 | 13   | ("4544720"   "5059720"   "5304617"  <br>"5374683"   "5570593"   "5670593"  <br>"5750626"   "5869574"   "5986150"  <br>"6054537"   "6069215"   "6225399").<br>PN. OR ("6500537").URPN. | US-PGPUB;<br>USPAT; USOCR                          | OR | ON | 2007/12/19<br>14:07 |
| S40 | 2    | S39 and (titanium near oxide)   | US-PGPUB;<br>USPAT;<br>USOCR; EPO;<br>JPO; DERWENT | OR | ON | 2007/12/19<br>14:08 |

|     |        |  |  | ·  |     |                     |
|-----|--------|--|--|----|-----|---------------------|
| S41 | 3      | S39 and (titania or "TiO.sub.2" or<br>TiO2 or (titanium near oxide))   | US-PGPUB;<br>USPAT;<br>USOCR; EPO;<br>JPO; DERWENT | OR | ON  | 2007/12/19<br>14:09 |
| S42 | 2      | ("20040224856").PN.  | US-PGPUB;<br>USPAT;<br>USOCR; EPO;<br>JPO; DERWENT | OR | OFF | 2007/12/20<br>07:41 |
| S43 | 1      | S42 and (titanium near oxide) and polytetrafluoroethylene and (coupling near agent) and based  | US-PGPUB;<br>USPAT;<br>USOCR; EPO;<br>JPO; DERWENT | OR | ON  | 2007/12/20<br>07:42 |
| S44 | 1      | ((wear or seizure) near5 (resistance<br>or resistant) same<br>(polytetrafluoroethylene or "PTFE"))<br>and ((polytetrafluoroethylene or<br>"PTFE") same (titania or (titanium adj<br>oxide)) same silane) | US-PGPUB;<br>USPAT;<br>USOCR; EPO;<br>JPO; DERWENT | OR | ON  | 2008/03/04<br>14:33 |
| S45 | 180517 | (wear or seizure) near5 (resistant or resistance)  | US-PGPUB;<br>USPAT;<br>USOCR; EPO;<br>JPO; DERWENT | OR | ON  | 2008/03/04<br>14:34 |
| S46 | 428    | 106/400.ccls.  | US-PGPUB;<br>USPAT;<br>USOCR; EPO;<br>JPO; DERWENT | OR | ON  | 2008/03/04<br>14:34 |
| S47 | 191    | 508/108.ccls.  | US-PGPUB;<br>USPAT;<br>USOCR; EPO;<br>JPO; DERWENT | OR | ON  | 2008/03/04<br>14:34 |
| S48 | 495    | 525/104.ccls.  | US-PGPUB;<br>USPAT;<br>USOCR; EPO;<br>JPO; DERWENT | OR | ON  | 2008/03/04<br>14:34 |
| S49 | 206    | 525/180.ccls.  | US-PGPUB;<br>USPAT;<br>USOCR; EPO;<br>JPO; DERWENT | OR | ON  | 2008/03/04<br>14:34 |
| S50 | 737    | 525/184.ccls.  | US-PGPUB;<br>USPAT;<br>USOCR; EPO;<br>JPO; DERWENT | OR | ON  | 2008/03/04<br>14:34 |
| S51 | 2007   | S46 S47 S48 S49 S50  | US-PGPUB;<br>USPAT;<br>USOCR; EPO;<br>JPO; DERWENT | OR | ON  | 2008/03/04<br>14:34 |
| S52 | 153    | S51 and S45  | US-PGPUB;<br>USPAT;<br>USOCR; EPO;<br>JPO; DERWENT | OR | ON  | 2008/03/04<br>14:34 |
| S53 | 46     | S52 and ((polytetrafluoroethylene or "PTFE") same (composition or coating or film))  | US-PGPUB;<br>USPAT;<br>USOCR; EPO;<br>JPO; DERWENT | OR | ON  | 2008/03/04<br>14:35 |

| S54 | 11   | S53 and (titania or (titanium adj<br>oxide))  | US-PGPUB;<br>USPAT;<br>USOCR; EPO;<br>JPO; DERWENT | OR | ON  | 2008/03/04<br>14:35 |
|-----|------|---|--|----|-----|---------------------|
| S55 | 3    | ("6500537").PN.   | US-PGPUB;<br>USPAT;<br>USOCR; EPO;<br>JPO; DERWENT | OR | OFF | 2008/07/02<br>15:48 |
| S56 | 1    | S55 and film  | US-PGPUB;<br>USPAT;<br>USOCR; EPO;<br>JPO; DERWENT | OR | ON  | 2008/07/02<br>15:48 |
| S57 | 5339 | (polyimide or ("polyamide-imide" or "polyamide imide" or (polyamide near imide))) with binder   | US-PGPUB;<br>USPAT;<br>USOCR; EPO;<br>JPO; DERWENT | OR | ON  | 2008/07/02<br>16:41 |
| S58 | 1738 | (polyimide or ("polyamide-imide" or<br>"polyamide imide" or (polyamide near<br>imide))) near5 binder  | US-PGPUB;<br>USPAT;<br>USOCR; EPO;<br>JPO; DERWENT | OR | ON  | 2008/07/02<br>16:44 |
| S59 | 737  | (polyimide or ("polyamide-imide" or<br>"polyamide imide" or (polyamide near<br>imide))) near5 binder near resin   | US-PGPUB;<br>USPAT;<br>USOCR; EPO;<br>JPO; DERWENT | OR | ON  | 2008/07/02<br>17:02 |
| S60 | 11   | (polyimide or ("polyamide-imide" or<br>"polyamide imide" or (polyamide near<br>imide))) near5 (binder near resin) and<br>(sliding near2 part)   | US-PGPUB;<br>USPAT;<br>USOCR; EPO;<br>JPO; DERWENT | OR | ON  | 2008/07/02<br>17:26 |
| S61 | 2    | JP-01255798-\$.did.   | US-PGPUB;<br>USPAT;<br>USOCR; EPO;<br>JPO; DERWENT | OR | ON  | 2008/07/03<br>08:26 |
| S62 | 19   | (polyimide or "polyamide-imide" or (polyamide near imide)) same ("PFTE" or "pfte" or polytetrafluoroethylene or polytetrafluoro-ethylene or teflon) same silane same (titania or titanium adj oxide or titanium adj dioxide or anatase or rutile or "tio.sub.2" or "tio2")  | US-PGPUB;<br>USPAT;<br>USOCR; EPO;<br>JPO; DERWENT | OR | ON  | 2009/01/26<br>10:42 |
| S63 | 0    | ("2004/0224856").URPN.  | USPAT  | OR | ON  | 2009/01/26<br>10:47 |
| S64 | 50   | (US-5980216-\$ or US-4972764-\$ or US-5934172-\$ or US-6694863-\$ or US-6189434-\$ or US-5950521-\$ or US-5941157-\$ or US-5950521-\$ or US-4263814-\$ or US-4289453-\$ or US-420986-\$ or US-4522112-\$ or US-5782613-\$ or US-5983775-\$ or US-5931079-\$ or US-5983775-\$ or US-6006652-\$ or US-6012905-\$ or US-6192699-\$ or US-4138775-\$ or US-4285640-\$ or US-4416458-\$ or US-4432702-\$ or US-4470761-\$ or US-4502853-\$ or US-4519119-\$).did. or (US-4568252-\$ or US-4884952-\$ or US-5228379-\$ or US-5391058-\$ or US-5452647-\$ or US-5490767-\$ or US-5452647-\$ or US-5490767-\$ or US-5452647-\$ or US-5490767-\$ or US-5981058-\$ or US-5452647-\$ or US-5490767-\$ or US-5452647-\$ or US-5490767-\$ or US-5981058-\$ or US-5452647-\$ or US-5490767-\$ or US-5452647-\$ or US-5452 | USPAT  | OR | ON  | 2009/01/26<br>11:30 |

|     |        | 5492459-\$ or US-5495789-\$ or US-5720215-\$ or US-5741122-\$ or US-5784950-\$ or US-5839347-\$ or US-5896803-\$ or US-5911809-\$ or US-5937731-\$ or US-5941160-\$ or US-5950520-\$ or US-5988041-\$ or US-6024008-\$ or US-6044751-\$ or US-6056517-\$ or US-6092996-\$ or US-6095761-\$ or US-6098520-\$).did.    |  |    |    |                     |
|-----|--------|--|--|----|----|---------------------|
| S65 | 0      | S64 and (polyimide or "polyamide-<br>imide" or (polyamide near imide)) and<br>("PFTE" or "pfte" or "(PTFE)" or<br>polytetrafluoroethylene or<br>polytetrafluoro-ethylene or teflon) and<br>silane and (titania or titanium adj<br>oxide or titanium adj dioxide or<br>anatase or rutile or "tio.sub.2" or<br>"tio2") | US-PGPUB;<br>USPAT;<br>USOCR; EPO;<br>JPO; DERWENT | OR | ON | 2009/01/26<br>11:39 |
| S66 | 0      | S64 and (polyimide or "polyamide-<br>imide" or (polyamide near imide)) and<br>("PFTE" or "pfte" or "(PTFE)" or<br>polytetrafluoroethylene or<br>polytetrafluoro-ethylene or teflon) and<br>(titania or titanium adj oxide or<br>titanium adj dioxide or anatase or<br>rutile or "tio.sub.2" or "tio2")               | US-PGPUB;<br>USPAT;<br>USOCR; EPO;<br>JPO; DERWENT | OR | ON | 2009/01/26<br>11:39 |
| S67 | 0      | S64 and (polyimide or "polyamide-<br>imide" or (polyamide near imide)) and<br>("PFTE" or "pfte" or "(PTFE)" or<br>polytetrafluoroethylene or<br>polytetrafluoro-ethylene or teflon) and<br>silane  | US-PGPUB;<br>USPAT;<br>USOCR; EPO;<br>JPO; DERWENT | OR | ON | 2009/01/26<br>11:39 |
| S68 | O      | S64 and ("PFTE" or "pfte" or "(PTFE)" or polytetrafluoroethylene or polytetrafluoro-ethylene or teflon) and silane and (titania or titanium adj oxide or titanium adj dioxide or anatase or rutile or "tio.sub.2" or "tio2")   | US-PGPUB;<br>USPAT;<br>USOCR; EPO;<br>JPO; DERWENT | OR | ON | 2009/01/26<br>11:39 |
| S69 | 0      | S64 and (polyimide or "polyamide-<br>imide" or (polyamide near imide)) and<br>silane and (titania or titanium adj<br>oxide or titanium adj dioxide or<br>anatase or rutile or "tio.sub.2" or<br>"tio2")  | US-PGPUB;<br>USPAT;<br>USOCR; EPO;<br>JPO; DERWENT | OR | ON | 2009/01/26<br>11:39 |
| S70 | 576    | sliding near (parts or members or<br>segments) and (polyimide or<br>"polyamide-imide" or (polyamide near<br>imide)) and ("PTFE" or "(PTFE)" or<br>ptfe or polytetrafluoroethylene or<br>teflon)  | US-PGPUB;<br>USPAT;<br>USOCR; EPO;<br>JPO; DERWENT | OR | ON | 2009/01/26<br>11:41 |
| S71 | 289386 | sliding near (parts or members or<br>segments) and (polyimide or<br>"polyamide-imide" or (polyamide near<br>imide)) samd3 ("PTFE" or "(PTFE)" or<br>ptfe or polytetrafluoroethylene or<br>teflon)  | US-PGPUB;<br>USPAT;<br>USOCR; EPO;<br>JPO; DERWENT | OR | ON | 2009/01/26<br>11:41 |

| S72 | 453  | sliding near (parts or members or<br>segments) and (polyimide or<br>"polyamide-imide" or (polyamide near<br>imide)) same3 ("PTFE" or "(PTFE)" or<br>ptfe or polytetrafluoroethylene or<br>teflon)   | US-PGPUB;<br>USPAT;<br>USOCR; EPO;<br>JPO; DERWENT | OR | ON  | 2009/01/26<br>11:41 |
|-----|------|---|--|----|-----|---------------------|
| S73 | 68   | sliding near (parts or members or<br>segments) and (polyimide or<br>"polyamide-imide" or (polyamide near<br>imide)) and ("PTFE" or "(PTFE)" or<br>ptfe or polytetrafluoroethylene or<br>teflon) and (coupling near agent or<br>silane)  | US-PGPUB;<br>USPAT;<br>USOCR; EPO;<br>JPO; DERWENT | OR | ON  | 2009/01/26<br>11:42 |
| S74 | 43   | sliding near (parts or members or segments) and (polyimide or "polyamide-imide" or (polyamide near imide)) and ("PTFE" or "(PTFE)" or ptfe or polytetrafluoroethylene or teflon) and (coupling near agent or silane) and ("tio.sub.2" or "tio2" or (titanium adj (oxide or dioxide)) or titania)                        | US-PGPUB;<br>USPAT;<br>USOCR; EPO;<br>JPO; DERWENT | OR | ON  | 2009/01/26<br>11:43 |
| S75 | 4    | ("3781205").PN.   | US-PGPUB;<br>USPAT;<br>USOCR; EPO;<br>JPO; DERWENT | OR | OFF | 2009/01/26<br>11:49 |
| S76 | 8    | ((((wear or seizure) near3 resistance) or (sliding near3 parts)).ab. and (polytetrafluoroethylene or ptfe or "PTFE" or teflon) same2 (binder or polyimide or "polyamide-imide" or (polyamide near imide)) same2 (coulping or silane) and ((titanium near (oxide or dioxide)) or "TiO.sub.2" or "TiO2")                  | US-PGPUB;<br>USPAT;<br>USOCR; EPO;<br>JPO; DERWENT | OR | ON  | 2009/01/30<br>09:59 |
| S77 | 6141 | ((((wear or seizure) near resistance) or (sliding near3 parts)).clm.  | US-PGPUB;<br>USPAT;<br>USOCR; EPO;<br>JPO; DERWENT | OR | ON  | 2009/01/30<br>10:41 |
| S78 | 1    | (((wear or seizure) near resistance) or (sliding near3 parts)).clm. and (polytetrafluoroethylene or ptfe or "PTFE" or teflon) same2 (binder or polyimide or "polyamide-imide" or (polyamide near imide)) same2 (coulping or silane) and ((titanium near (oxide or dioxide)) or "TiO.sub.2" or "TiO2")                   | US PGPUB;<br>USPAT;<br>USOCR; EPO;<br>JPO; DERWENT | OR | ON  | 2009/01/30<br>10:41 |
| S79 | 4    | ((((wear or seizure) near resistance) or<br>(sliding near3 parts)).clm. and<br>(polytetrafluoroethylene or ptfe or<br>"PTFE" or teflon) and (binder or<br>polyimide or "polyamide-imide" or<br>(polyamide near imide)) and (coulping<br>or silane) and ((titanium near (oxide<br>or dioxide)) or "TiO.sub.2" or "TiO2") | US-PGPUB;<br>USPAT;<br>USOCR; EPO;<br>JPO; DERWENT | OR | ON  | 2009/01/30<br>10:42 |

| S80 | 1823 | (polytetrafluoroethylene or ptfe or   | US-PGPUB;  | OR | ON  | 2009/01/30          |
|-----|------|---|--|----|-----|---------------------|
|     |      | "PTFE" or teflon) and (polyimide or "polyamide-imide" or (polyamide near imide)) and (coulping or silane) and ((titanium near (oxide or dioxide)) or "TiO.sub.2" or "TiO2") with (powder or particle or particulate)  | USPAT;<br>USOCR; EPO;<br>JPO; DERWENT              |    |     | 11:15               |
| S81 | 645  | (polytetrafluoroethylene or ptfe or "PTFE" or teflon) same (polyimide or "polyamide-imide" or (polyamide near imide)) and (coulping or silane) and ((titanium near (oxide or dioxide)) or "TiO.sub.2" or "TiO2") with (powder or particle or particulate)     | US-PGPUB;<br>USPAT;<br>USOCR; EPO;<br>JPO; DERWENT | OR | ON  | 2009/01/30<br>11:15 |
| S82 | 224  | (polytetrafluoroethylene or ptfe or "PTFE" or teflon) same (polyimide or "polyamide-imide" or (polyamide near imide)) same2 (coulping or silane) and ((titanium near (oxide or dioxide)) or "TiO.sub.2" or "TiO2") with (powder or particle or particulate)   | US-PGPUB;<br>USPAT;<br>USOCR; EPO;<br>JPO; DERWENT | OR | ON  | 2009/01/30<br>11:15 |
| S83 | 134  | (polytetrafluoroethylene or ptfe or "PTFE" or teflon) same (polyimide or "polyamide-imide" or (polyamide near imide)) same2 (coulping or silane) same2 ((titanium near (oxide or dioxide)) or "TiO.sub.2" or "TiO2") with (powder or particle or particulate) | US-PGPUB;<br>USPAT;<br>USOCR; EPO;<br>JPO; DERWENT | OR | ON  | 2009/01/30<br>11:16 |
| S84 | 8    | (polytetrafluoroethylene or ptfe or "PTFE" or teflon) same (polyimide or "polyamide-imide" or (polyamide near imide)) same (coulping or silane) same ((titanium near (oxide or dioxide)) or "TiO.sub.2" or "TiO2") with (powder or particle or particulate)   | US-PGPUB;<br>USPAT;<br>USOCR; EPO;<br>JPO; DERWENT | OR | ON  | 2009/01/30<br>11:16 |
| S85 | 2    | ("4742110").PN.   | US-PGPUB;<br>USPAT;<br>USOCR; EPO;<br>JPO; DERWENT | OR | OFF | 2009/01/30<br>11:32 |
| S86 | 1    | S85 and polyamide-imide and "MFR"   | US-PGPUB;<br>USPAT;<br>USOCR; EPO;<br>JPO; DERWENT | OR | ON  | 2009/01/30<br>11:33 |
| S87 | 0    | S85 and sliding   | US-PGPUB;<br>USPAT;<br>USOCR; EPO;<br>JPO; DERWENT | OR | ON  | 2009/01/30<br>11:41 |
| S88 | 0    | S85 and (metal or automotive)   | US-PGPUB;<br>USPAT;<br>USOCR; EPO;<br>JPO; DERWENT | OR | ON  | 2009/01/30<br>11:42 |
| S89 | 61   | polyamide near composition same<br>(known or conventional) same<br>((sliding near part) or automotive or<br>equipment)  | US-PGPUB;<br>USPAT;<br>USOCR; EPO;<br>JPO; DERWENT | OR | ON  | 2009/01/30<br>11:42 |

| S90  | 9674 | silane near coupling with<br>(concentration or amount or content<br>or weight)  | US-PGPUB;<br>USPAT;<br>USOCR; EPO;<br>JPO; DERWENT | OR | ON | 2009/01/30<br>12:10 |
|------|------|---|--|----|----|---------------------|
| S91  | 124  | polyamide near composition same<br>(molding or moldability or extrusion)<br>same (metal or sliding near part or<br>wear near resistance)  | US-PGPUB;<br>USPAT;<br>USOCR; EPO;<br>JPO; DERWENT | OR | ON | 2009/01/30<br>12:12 |
| S92  | 40   | polyamide near composition same<br>(molding or moldability or extrusion)<br>same (equipment or sliding near part<br>or wear near resistance)  | US-PGPUB;<br>USPAT;<br>USOCR; EPO;<br>JPO; DERWENT | OR | ON | 2009/01/30<br>12:13 |
| S93  | 61   | polyamide near composition same (molding or moldability or extrusion) same (equipment or automation or automotive or sliding near part or wear near resistance)   | US-PGPUB;<br>USPAT;<br>USOCR; EPO;<br>JPO; DERWENT | OR | ON | 2009/01/30<br>12:13 |
| S94  | 131  | (generally or usually) with powder with ((titanium near oxide) or "TiO. sub.2" or tio2)   | US-PGPUB;<br>USPAT;<br>USOCR; EPO;<br>JPO; DERWENT | OR | ON | 2009/01/30<br>12:18 |
| S95  | 10   | (generally or usually) with powder with ((titanium near oxide) or "TiO. sub.2" or tio2) with size   | US-PGPUB;<br>USPAT;<br>USOCR; EPO;<br>JPO; DERWENT | OR | ON | 2009/01/30<br>12:18 |
| S96  | 13   | (generally or usually) with powder with ((titanium near oxide) or "TiO. sub.2" or tio2) with (size or diameter)   | US-PGPUB;<br>USPAT;<br>USOCR; EPO;<br>JPO; DERWENT | OR | ON | 2009/01/30<br>12:18 |
| S97  | 9492 | ("TiO2" or titania or "TiO.sub.2" or<br>(titanium near oxide) or (titanium<br>near dioxide)) same filler same (size<br>or diameter)   | US-PGPUB;<br>USPAT;<br>USOCR; EPO;<br>JPO; DERWENT | OR | ON | 2009/01/30<br>13:08 |
| S98  | 2927 | ("TiO2" or titania or "TiO.sub.2" or (titanium near oxide) or (titanium near dioxide)) same filler same (size or diameter) same (usually or often or known or conventional or conventionally)   | US-PGPUB;<br>USPAT;<br>USOCR; EPO;<br>JPO; DERWENT | OR | ON | 2009/01/30<br>13:08 |
| S99  | 1617 | ("TiO2" or titania or "TiO.sub.2" or (titanium near oxide) or (titanium near dioxide)) with filler same (size or diameter) same (usually or often or known or conventional or conventionally or generally)  | US-PGPUB;<br>USPAT;<br>USOCR; EPO;<br>JPO; DERWENT | OR | ON | 2009/01/30<br>13:08 |
| S100 | 281  | ("TiO2" or titania or "TiO.sub.2" or (titanium near oxide) or (titanium near dioxide)) with filler with (size or diameter) same (usually or often or known or conventional or conventionally)   | US-PGPUB;<br>USPAT;<br>USOCR; EPO;<br>JPO; DERWENT | OR | ON | 2009/01/30<br>13:08 |
| S101 | 200  | ("TiO2" or titania or "TiO.sub.2" or<br>(titanium near oxide) or (titanium<br>near dioxide)) with (particle or<br>powder or particulate) with filler with<br>(size or diameter) same (usually or<br>often or known or conventional or<br>conventionally or generally) | US-PGPUB;<br>USPAT;<br>USOCR; EPO;<br>JPO; DERWENT | OR | ON | 2009/01/30<br>13:09 |

| S102 | 55   | ("TiO2" or titania or "TiO.sub.2" or (titanium near oxide) or (titanium  | US-PGPUB;<br>USPAT;                                | OR | ON | 2009/01/30<br>13:09 |
|------|------|--|--|----|----|---------------------|
|      |      | near dioxide)) with (particle or<br>powder or particulate) with filler with<br>(size or diameter) with (usually or<br>often or known or conventional or<br>conventionally or generally)  | USOCR; EPO;<br>JPO; DERWENT                        |    |    |                     |
| S103 | 296  | (moldable or moldability or extrusion or molding) same composition and ("TiO2" or titania or "TiO.sub.2" or (titanium near oxide) or (titanium near dioxide)) with (particle or powder or particulate) with filler with (size or diameter) | US-PGPUB;<br>USPAT;<br>USOCR; EPO;<br>JPO; DERWENT | OR | ON | 2009/01/30<br>13:20 |
| S104 | 1    | mold\$4 near2 composition same filler with ((titanium near oxide) or (titanium near dioxide) or titania or "TiO.sub.2" or "TiO2") with (generally or known or conventional or conventionally or usually or often) with (size or diameter)  | US-PGPUB;<br>USPAT;<br>USOCR; EPO;<br>JPO; DERWENT | OR | ON | 2009/01/30<br>13:46 |
| S105 | 1    | mold\$4 near4 composition same filler with ((titanium adj oxide) or (titanium adj dioxide) or titania or "TiO.sub.2" or "TiO2") with (generally or known or conventional or conventionally or usually or often) with (size or diameter)    | US-PGPUB;<br>USPAT;<br>USOCR; EPO;<br>JPO; DERWENT | OR | ON | 2009/01/30<br>13:46 |
| S106 | 9    | mold\$4 same filler with ((titanium adjoxide) or (titanium adj dioxide) or titania or "TiO.sub.2" or "TiO2") with (generally or known or conventional or conventionally or usually or often) with (size or diameter)                       | US-PGPUB;<br>USPAT;<br>USOCR; EPO;<br>JPO; DERWENT | OR | ON | 2009/01/30<br>13:47 |
| S107 | 4959 | silane same polymer same filler  | US-PGPUB;<br>USPAT;<br>USOCR; EPO;<br>JPO; DERWENT | OR | ON | 2009/01/30<br>13:49 |
| S108 | 1436 | silane same polymer same filler same<br>inorganic  | US-PGPUB;<br>USPAT;<br>USOCR; EPO;<br>JPO; DERWENT | OR | ON | 2009/01/30<br>13:49 |
| S109 | 367  | silane same polymer same filler same<br>inorganic same (talc or titania or "TiO.<br>sub.2" or "tio2" or (titanium adj<br>dioxide) or (titanium adj oxide))   | US-PGPUB;<br>USPAT;<br>USOCR; EPO;<br>JPO; DERWENT | OR | ON | 2009/01/30<br>13:54 |
| S110 | 95   | silane same polymer same treat\$4<br>near5 filler same inorganic same (talc<br>or titania or "TiO.sub.2" or "tio2" or<br>(titanium adj dioxide) or (titanium adj<br>oxide))  | US-PGPUB;<br>USPAT;<br>USOCR; EPO;<br>JPO; DERWENT | OR | ON | 2009/01/30<br>13:54 |
| S111 | 932  | (filler near5 treat\$4 near5 silane) and<br>(filler with (titania or (titanium near<br>oxide) or (titanium near dioxide) or<br>"TiO.sub.2" or "TiO2"))   | US PGPUB;<br>USPAT;<br>USOCR; EPO;<br>JPO; DERWENT | OR | ON | 2009/01/30<br>13:56 |

| S112 | 262    | (mold\$4 near2 composition) and (filler<br>near5 treat\$4 near5 silane) and (filler<br>with (titania or (titanium near oxide)<br>or (titanium near dioxide) or "TiO.<br>sub.2" or "TiO2"))  | US-PGPUB;<br>USPAT;<br>USOCR; EPO;<br>JPO; DERWENT | OR | ON  | 2009/01/30<br>13:57 |
|------|--------|---|--|----|-----|---------------------|
| S113 | 25     | (mold\$4 near2 composition).ab. and<br>(filler near5 treat\$4 near5 silane) and<br>(filler with (titania or (titanium near<br>oxide) or (titanium near dioxide) or<br>"TiO.sub.2" or "TiO2"))   | US-PGPUB;<br>USPAT;<br>USOCR; EPO;<br>JPO; DERWENT | OR | ON  | 2009/01/30<br>13:57 |
| S114 | 1      | (mold\$4 near2 composition).ab. and<br>(filler near5 treat\$4 near5 silane with<br>(amount or concentration or weight or<br>content)) and (filler with (titania or<br>(titanium near oxide) or (titanium<br>near dioxide) or "TiO.sub.2" or<br>"TiO2")) | US-PGPUB;<br>USPAT;<br>USOCR; EPO;<br>JPO; DERWENT | OR | ON  | 2009/01/30<br>13:58 |
| S115 | 17     | (mold\$4 near2 composition).ab. and (filler near5 treat\$4 near5 silane) and (filler with (titania or (titanium near oxide) or (titanium near dioxide) or "TiO.sub.2" or "TiO2")) and silane with (amount or concentration or weight or content)        | US PGPUB;<br>USPAT;<br>USOCR; EPO;<br>JPO; DERWENT | OR | ON  | 2009/01/30<br>13:59 |
| S116 | 2      | (("5948339").PN.  | US-PGPUB;<br>USPAT;<br>USOCR; EPO;<br>JPO; DERWENT | OR | OFF | 2009/01/30<br>14:42 |
| S117 | 1      | S116 and silane with weight and titanium near dioxide with filler and treating with filler with silane  | US-PGPUB;<br>USPAT;<br>USOCR; EPO;<br>JPO; DERWENT | OR | ON  | 2009/01/30<br>14:43 |
| S118 | 2      | ("20020161091").PN.   | US-PGPUB;<br>USPAT;<br>USOCR; EPO;<br>JPO; DERWENT | OR | OFF | 2009/01/30<br>15:26 |
| S119 | 2509   | acrylonitrile with binder near resin  | US-PGPUB;<br>USPAT;<br>USOCR; EPO;<br>JPO; DERWENT | OR | ON  | 2009/01/30<br>15:31 |
| S120 | 158    | acrylonitrile with binder near resin<br>same film   | US-PGPUB;<br>USPAT;<br>USOCR; EPO;<br>JPO; DERWENT | OR | ON  | 2009/01/30<br>15:31 |
| S121 | 126020 | ((((wear or seizure) near5 resistan\$3)<br>or (sliding near2 (part or film))).ab.   | US-PGPUB;<br>USPAT;<br>USOCR; EPO;<br>JPO; DERWENT | OR | ON  | 2009/11/02<br>14:25 |
| S122 | 61     | ((((wear or seizure) near5 resistan\$3) or (sliding near2 (part or film))).ab. and silane and (polyimide or polyamide) and (Teflon or polytetrafluoroethylene) and ("TiO. sub.2" or "TiO2" or titanium or titania)                                      | US-PGPUB;<br>USPAT;<br>USOCR; EPO;<br>JPO; DERWENT | OR | ON  | 2009/11/02<br>14:26 |
| S123 | 4572   | silane near10 (treated or treating or<br>treat) near10 (filler or titanium or<br>titani or "TiO.sub.2" or "TiO2")   | US-PGPUB;<br>USPAT;<br>USOCR; EPO;<br>JPO; DERWENT | OR | ON  | 2009/11/02<br>14:38 |

| S124 | 286 | silane near10 (treated or treating or<br>treat) near10 (filler or titanium or<br>titani or "TiO.sub.2" or "TiO2") and<br>((wear near2 resistan\$3) or (seizure<br>near3 resistan\$3) or (sliding near2<br>part) or (sliding near3 film))      | US-PGPUB;<br>USPAT;<br>USOCR; EPO;<br>JPO; DERWENT | OR | ON  | 2009/11/02<br>14:39 |
|------|-----|---|--|----|-----|---------------------|
| S125 | 5   | silane near10 (treated or treating or<br>treat) near10 (filler or titanium or<br>titani or "TiO.sub.2" or "TiO2") and<br>((wear near2 resistan\$3) or (seizure<br>near3 resistan\$3) or (sliding near2<br>part) or (sliding near3 film)).clm. | US-PGPUB;<br>USPAT;<br>USOCR; EPO;<br>JPO; DERWENT | OR | ON  | 2009/11/02<br>14:39 |
| S126 | 2   | silane near10 (treated or treating or<br>treat) near10 (titanium or titania or<br>"TiO.sub.2" or "TiO2") and ((wear<br>near2 resistan\$3) or (seizure near3<br>resistan\$3) or (sliding near2 part) or<br>(sliding near3 film)).clm.          | US-PGPUB;<br>USPAT;<br>USOCR; EPO;<br>JPO; DERWENT | OR | ON  | 2009/11/02<br>15:07 |
| S127 | 13  | silane near10 (treated or treating or<br>treat) near10 (titanium or titania or<br>"TiO.sub.2" or "TiO2") and ((wear<br>near2 resistan\$3) or (seizure near3<br>resistan\$3) or (sliding near2 part) or<br>(sliding near3 film)).ab.           | US-PGPUB;<br>USPAT;<br>USOCR; EPO;<br>JPO; DERWENT | OR | ON  | 2009/11/02<br>15:08 |
| S128 | 2   | ("4742110").PN.   | US-PGPUB;<br>USPAT;<br>USOCR; EPO;<br>JPO; DERWENT | OR | OFF | 2009/11/02<br>15:11 |
| S129 | 1   | S128 and silane   | US-PGPUB;<br>USPAT;<br>USOCR; EPO;<br>JPO; DERWENT | OR | ON  | 2009/11/02<br>15:11 |
| S130 | 1   | S128 and coupling   | US-PGPUB;<br>USPAT;<br>USOCR; EPO;<br>JPO; DERWENT | OR | ON  | 2009/11/02<br>15:11 |
| S131 | 44  | silane near5 coupling near10 (widely<br>or known or usually or skilled) near5<br>treat\$4 near3 (titanium or titania or<br>"TiO.sub.2" or "TiO2")   | US-PGPUB;<br>USPAT;<br>USOCR; EPO;<br>JPO; DERWENT | OR | ON  | 2009/11/02<br>15:12 |
| S132 | 497 | 106/400.ccls.   | US-PGPUB;<br>USPAT;<br>USOCR; EPO;<br>JPO; DERWENT | OR | ON  | 2009/11/02<br>15:19 |
| S133 | 203 | 508/108.ccls.   | US-PGPUB;<br>USPAT;<br>USOCR; EPO;<br>JPO; DERWENT | OR | ON  | 2009/11/02<br>15:19 |
| S134 | 519 | 525/104.ccls.   | US-PGPUB;<br>USPAT;<br>USOCR; EPO;<br>JPO; DERWENT | OR | ON  | 2009/11/02<br>15:19 |
| S135 | 211 | 525/180.ccls.   | US-PGPUB;<br>USPAT;<br>USOCR; EPO;<br>JPO; DERWENT | OR | ON  | 2009/11/02<br>15:19 |

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|------|-------|---|--|----|-----|---------------------|
| S136 | 746   | 525/184.ccls.   | US-PGPUB;<br>USPAT;<br>USOCR; EPO;<br>JPO; DERWENT | OR | ON  | 2009/11/02<br>15:19 |
| S137 | 2126  | S132 S133 S134 S135 S136  | US-PGPUB;<br>USPAT;<br>USOCR; EPO;<br>JPO; DERWENT | OR | ON  | 2009/11/02<br>15:19 |
| S138 | 27201 | S137 and silane near5 treat\$4<br>(titanium or titania or "TiO.sub.2" or<br>"TiO2") near (particle or powder or<br>particulate)   | US-PGPUB;<br>USPAT;<br>USOCR; EPO;<br>JPO; DERWENT | OR | ON  | 2009/11/02<br>15:19 |
| S139 | 367   | S137 and silane near5 treat\$4<br>(titanium or titania or "TiO.sub.2" or<br>"TiO2") near (particle or powder or<br>particulate) and (sliding near part or<br>wear near resistan\$4).ab. | US-PGPUB;<br>USPAT;<br>USOCR; EPO;<br>JPO; DERWENT | OR | ON  | 2009/11/02<br>15:20 |
| S140 | 351   | S137 and silane near5 treat\$3<br>(titanium or titania or "TiO.sub.2" or<br>"TiO2") near (particle or powder or<br>particulate) and (sliding near part or<br>wear near resistan\$4).ab. | US-PGPUB;<br>USPAT;<br>USOCR; EPO;<br>JPO; DERWENT | OR | ON  | 2009/11/02<br>15:20 |
| S141 | 2     | ("20060241207").PN.   | US-PGPUB;<br>USPAT;<br>USOCR; EPO;<br>JPO; DERWENT | OR | OFF | 2009/11/03<br>10:09 |
| S142 | 2     | S141 and "GPa"  | US-PGPUB;<br>USPAT;<br>USOCR; EPO;<br>JPO; DERWENT | OR | ON  | 2009/11/03<br>10:09 |
| S143 | 6266  | (ceramic or rock near wool or glass)<br>near2 (fiber or fibre) with (tensile or<br>"GPa" or "MPa")  | US-PGPUB;<br>USPAT;<br>USOCR; EPO;<br>JPO; DERWENT | OR | ON  | 2009/11/03<br>10:27 |
| S144 | 16    | (ceramic or rock near wool or glass) near2 (fiber or fibre) with (tensile or "GPa" or "MPa") and (friction near5 (material or composition or component or item)).ab.                    | US-PGPUB;<br>USPAT;<br>USOCR; EPO;<br>JPO; DERWENT | OR | ON  | 2009/11/03<br>10:27 |
| S145 | 497   | 106/400.ccls.   | US-PGPUB;<br>USPAT;<br>USOCR; EPO;<br>JPO; DERWENT | OR | ON  | 2009/11/03<br>11:02 |
| S146 | 203   | 508/108.ccls.   | US-PGPUB;<br>USPAT;<br>USOCR; EPO;<br>JPO; DERWENT | OR | ON  | 2009/11/03<br>11:02 |
| S147 | 519   | 525/104.ccls.   | US-PGPUB;<br>USPAT;<br>USOCR; EPO;<br>JPO; DERWENT | OR | ON  | 2009/11/03<br>11:02 |
| S148 | 211   | 525/180.ccls.   | US-PGPUB;<br>USPAT;<br>USOCR; EPO;<br>JPO; DERWENT | OR | ON  | 2009/11/03<br>11:02 |

| S149 | 746  | 525/184.ccls.  | US-PGPUB;<br>USPAT;<br>USOCR; EPO;<br>JPO; DERWENT | OR | ON  | 2009/11/03<br>11:02 |
|------|------|--|--|----|-----|---------------------|
| S150 | 2126 | S145 S146 S147 S148 S149   | US-PGPUB;<br>USPAT;<br>USOCR; EPO;<br>JPO; DERWENT | OR | ON  | 2009/11/03<br>11:02 |
| S151 | 0    | S150 and fluid near environment same friction  | US-PGPUB;<br>USPAT;<br>USOCR; EPO;<br>JPO; DERWENT | OR | ON  | 2009/11/03<br>11:02 |
| S152 | 4890 | rotating near2 part near10<br>(automobile or airplane or machine or<br>bicycle)  | US-PGPUB;<br>USPAT;<br>USOCR; EPO;<br>JPO; DERWENT | OR | ON  | 2009/11/03<br>11:03 |
| S153 | 166  | rotating near2 part near10<br>(automobile or airplane or machine or<br>bicycle) with fluid   | US-PGPUB;<br>USPAT;<br>USOCR; EPO;<br>JPO; DERWENT | OR | ON  | 2009/11/03<br>11:03 |
| S154 | 59   | rotating near2 part near10<br>(automobile or airplane or machine or<br>bicycle) with fluid same pressure   | US-PGPUB;<br>USPAT;<br>USOCR; EPO;<br>JPO; DERWENT | OR | ON  | 2009/11/03<br>11:03 |
| S155 | 59   | rotating near2 part near10<br>(automobile or airplane or machine or<br>bicycle) with fluid same pressure   | US-PGPUB;<br>USPAT;<br>USOCR; EPO;<br>JPO; DERWENT | OR | ON  | 2009/11/03<br>12:18 |
| S156 | 3    | rotating near2 part near10<br>(automobile or airplane or machine or<br>bicycle) with fluid same pressure<br>same ("Pa" or "MPa" or "GPa" or<br>pascal)                             | US-PGPUB;<br>USPAT;<br>USOCR; EPO;<br>JPO; DERWENT | OR | ON  | 2009/11/03<br>12:18 |
| S157 | 1    | rotating near2 part near10 automobile<br>with (fluid or liquid or oil or medium<br>or media) same pressure   | US-PGPUB;<br>USPAT;<br>USOCR; EPO;<br>JPO; DERWENT | OR | ON  | 2009/11/03<br>12:20 |
| S158 | 2    | ("5573579").PN.  | US-PGPUB;<br>USPAT;<br>USOCR; EPO;<br>JPO; DERWENT | OR | OFF | 2009/11/03<br>13:20 |
| S159 | О    | S158 and (brake or clutch)   | US-PGPUB;<br>USPAT;<br>USOCR; EPO;<br>JPO; DERWENT | OR | ON  | 2009/11/03<br>13:20 |
| S160 | 155  | (brake or clutch) same friction near5<br>(material or composition or<br>compound) same (carbon or<br>carbonaceous) near2 fiber and<br>(ceramic or glass) near2 (fiber or<br>fibre) | US-PGPUB;<br>USPAT;<br>USOCR; EPO;<br>JPO; DERWENT | OR | ON  | 2009/11/03<br>13:21 |
| S161 | 91   | (brake near lining or clutch) same friction near5 (material or composition or compound) same (carbon or carbonaceous) near2 fiber and (ceramic or glass) near2 (fiber or fibre)    | US-PGPUB;<br>USPAT;<br>USOCR; EPO;<br>JPO; DERWENT | OR | ON  | 2009/11/03<br>13:21 |

| S162 | 0     | S158 and (pore or pores or porosity or porous)   | US-PGPUB;<br>USPAT;<br>USOCR; EPO;<br>JPO; DERWENT | OR | ON  | 2009/11/03<br>13:33 |
|------|-------|--|--|----|-----|---------------------|
| S163 | 5     | (("6331358") or ("4175070")).PN.   | US-PGPUB;<br>USPAT;<br>USOCR; EPO;<br>JPO; DERWENT | OR | OFF | 2009/11/03<br>13:34 |
| S164 | 0     | S163 and (pore or pores or porosity or porous)   | US-PGPUB;<br>USPAT;<br>USOCR; EPO;<br>JPO; DERWENT | OR | ON  | 2009/11/03<br>13:34 |
| S165 | 8666  | lam.in.  | US-PGPUB;<br>USPAT;<br>USOCR; EPO;<br>JPO; DERWENT | OR | ON  | 2009/11/03<br>17:36 |
| S166 | 48023 | dong.in.   | US-PGPUB;<br>USPAT;<br>USOCR; EPO;<br>JPO; DERWENT | OR | ON  | 2009/11/03<br>17:36 |
| S167 | 39    | (S165 S166) and (carbon same friction).clm.  | US-PGPUB;<br>USPAT;<br>USOCR; EPO;<br>JPO; DERWENT | OR | ON  | 2009/11/03<br>17:36 |
| S168 | 33    | (S165 S166) and (carbon same friction same fiber same (ceramic or aramid or glass or silica or mineral)). clm.                                 | US-PGPUB;<br>USPAT;<br>USOCR; EPO;<br>JPO; DERWENT | OR | ON  | 2009/11/03<br>17:37 |
| S169 | 3     | (S165 S166) and (carbon same<br>friction same fiber same (ceramic or<br>aramid or glass or silica or mineral)<br>same (size or diameter)).clm. | US-PGPUB;<br>USPAT;<br>USOCR; EPO;<br>JPO; DERWENT | OR | ON  | 2009/11/03<br>17:37 |
| S170 | 2     | ("6001750").PN.  | US-PGPUB;<br>USPAT;<br>USOCR; EPO;<br>JPO; DERWENT | OR | OFF | 2009/11/03<br>17:54 |
| S171 | 2     | S170 and diameter  | US-PGPUB;<br>USPAT;<br>USOCR; EPO;<br>JPO; DERWENT | OR | ON  | 2009/11/03<br>17:54 |
| S172 | 7173  | saiki.in.  | US-PGPUB;<br>USPAT;<br>USOCR; EPO;<br>JPO; DERWENT | OR | ON  | 2009/11/04<br>12:51 |
| S173 | 165   | shintoku.in.   | US-PGPUB;<br>USPAT;<br>USOCR; EPO;<br>JPO; DERWENT | OR | ON  | 2009/11/04<br>12:51 |
| S174 | 38030 | baba.in.   | US-PGPUB;<br>USPAT;<br>USOCR; EPO;<br>JPO; DERWENT | OR | ON  | 2009/11/04<br>12:51 |
| S175 | 2736  | shimo.in.  | US-PGPUB;<br>USPAT;<br>USOCR; EPO;<br>JPO; DERWENT | OR | ON  | 2009/11/04<br>12:51 |

| S176 | 16512  | murase.in.   | US-PGPUB;<br>USPAT;<br>USOCR; EPO;<br>JPO; DERWENT | OR | ON  | 2009/11/04<br>12:51 |
|------|--------|--|--|----|-----|---------------------|
| S177 | 174267 | yamaguchi.in.  | US-PGPUB;<br>USPAT;<br>USOCR; EPO;<br>JPO; DERWENT | OR | ON  | 2009/11/04<br>12:51 |
| S178 | 112243 | yamashita.in.  | US-PGPUB;<br>USPAT;<br>USOCR; EPO;<br>JPO; DERWENT | OR | ON  | 2009/11/04<br>12:52 |
| S179 | 3      | (S172 S173 S174 S175 S176 S177<br>S178) and ((polyamide or polyimide)<br>same (titanium or titania) same<br>(sliding or wear or seizure)).clm. | US-PGPUB;<br>USPAT;<br>USOCR; EPO;<br>JPO; DERWENT | OR | ON  | 2009/11/04<br>12:53 |
| S180 | 2      | ("20040224856").PN.  | US-PGPUB;<br>USPAT;<br>USOCR; EPO;<br>JPO; DERWENT | OR | OFF | 2010/06/02<br>10:43 |
| S181 | 1      | S180 and polyamide   | US-PGPUB;<br>USPAT;<br>USOCR; EPO;<br>JPO; DERWENT | OR | ON  | 2010/06/02<br>10:43 |
| S182 | 82390  | abrasive and (gap or opening or<br>aperture)   | US-PGPUB;<br>USPAT;<br>USOCR; EPO;<br>JPO; DERWENT | OR | ON  | 2010/06/02<br>13:12 |
| S183 | 546    | (abrasive and (gap or opening or aperture)).ti.  | US-PGPUB;<br>USPAT;<br>USOCR; EPO;<br>JPO; DERWENT | OR | ON  | 2010/06/02<br>13:13 |
| S184 | 649652 | (abrasive near3 tooland (gap or opening or aperture)).ti.  | US-PGPUB;<br>USPAT;<br>USOCR; EPO;<br>JPO; DERWENT | OR | ON  | 2010/06/02<br>13:13 |
| S185 | 44     | (abrasive near3 tool and (gap or opening or aperture)).ti.   | US-PGPUB;<br>USPAT;<br>USOCR; EPO;<br>JPO; DERWENT | OR | ON  | 2010/06/02<br>13:13 |
| S186 | 520    | 106/400.ccls.  | US-PGPUB;<br>USPAT;<br>USOCR; EPO;<br>JPO; DERWENT | OR | ON  | 2010/06/02<br>13:21 |
| S187 | 213    | 508/108.ccls.  | US-PGPUB;<br>USPAT;<br>USOCR; EPO;<br>JPO; DERWENT | OR | ON  | 2010/06/02<br>13:21 |
| S188 | 532    | 525/104.ccls.  | US-PGPUB;<br>USPAT;<br>USOCR; EPO;<br>JPO; DERWENT | OR | ON  | 2010/06/02<br>13:21 |
| S189 | 213    | 525/180.ccls.  | US-PGPUB;<br>USPAT;<br>USOCR; EPO;<br>JPO; DERWENT | OR | ON  | 2010/06/02<br>13:21 |

| S190 | 757 | 525/184.ccls.   | US-PGPUB;<br>USPAT;<br>USOCR; EPO;<br>JPO; DERWENT | OR | ON  | 2010/06/02<br>13:21 |
|------|-----|---|--|----|-----|---------------------|
| S191 | 256 | (S186 S187 S188 S189 S190) and (polyimide or polyamide adj imide or "polyamide-imide")  | US-PGPUB;<br>USPAT;<br>USOCR; EPO;<br>JPO; DERWENT | OR | ON  | 2010/06/02<br>13:21 |
| S192 | 96  | (S186 S187 S188 S189 S190) and<br>(polyimide or polyamide adj imide or<br>"polyamide-imide") and (PTFE or<br>polytetrafluoroethylene)   | US-PGPUB;<br>USPAT;<br>USOCR; EPO;<br>JPO; DERWENT | OR | ON  | 2010/06/02<br>13:22 |
| S193 | 324 | (saiki.in. or shintoku.in. or babab.in.<br>or shimo.in. or murase.in. or<br>yamaguchi.in. or yamashita.in.) and<br>(polyimide or polyamide adj imide or<br>"polyamide-imide").clm.  | US-PGPUB;<br>USPAT;<br>USOCR; EPO;<br>JPO; DERWENT | OR | ON  | 2010/06/02<br>13:23 |
| S194 | 2   | (saiki.in. or shintoku.in. or babab.in. or shimo.in. or murase.in. or yamaguchi.in. or yamashita.in.) and ((polyimide or polyamide adj imide or "polyamide-imide") and (PTFE or polytetrafluoroethyelene)).clm.   | US-PGPUB;<br>USPAT;<br>USOCR; EPO;<br>JPO; DERWENT | OR | ON  | 2010/06/02<br>13:23 |
| S195 | 78  | (polytetrafluoroethylene or PTFE or poly near tetrafluoroethylene) same (film or coating) and (titanium near oxide or titanium near dioxide or "TiO. sub.2" or "TiO2") near4 (particle or powder or particulate or grain) and (silane near2 coupling) and binder near resin same (polyimide or "polyamide-imide" or polyamide near imide)                           | US-PGPUB;<br>USPAT;<br>USOCR; EPO;<br>JPO; DERWENT | OR | ON  | 2010/12/20<br>09:46 |
| S196 | 2   | ("20030054271").PN.   | US-PGPUB;<br>USPAT;<br>USOCR; EPO;<br>JPO; DERWENT | OR | OFF | 2010/12/20<br>09:49 |
| S197 | 1   | S196 and (size or diameter)   | US-PGPUB;<br>USPAT;<br>USOCR; EPO;<br>JPO; DERWENT | OR | ON  | 2010/12/20<br>09:49 |
| S198 | 6   | (polytetrafluoroethylene or PTFE or poly near tetrafluoroethylene) same (film or coating) and (titanium near oxide or titanium near dioxide or "TiO. sub.2" or "TiO2") near4 (particle or powder or particulate or grain) and (silane near2 coupling) and binder near resin same (polyimide or "polyamide-imide" or polyamide near imide) and (film or coating).ti. | US-PGPUB;<br>USPAT;<br>USOCR; EPO;<br>JPO; DERWENT | OR | ON  | 2010/12/20<br>12:01 |

| S199 | 16  | (polytetrafluoroethylene or PTFE or poly near tetrafluoroethylene) same (film or coating) and (titanium near oxide or titanium near dioxide or "TiO. sub.2" or "TiO2") near4 (particle or powder or particulate or grain) and (silane near2 coupling) and binder near resin same (polyimide or "polyamide-imide" or polyamide near imide) and (film or coating).ab. | US-PGPUB;<br>USPAT;<br>USOCR; EPO;<br>JPO; DERWENT | OR | ON | 2010/12/20<br>12:01 |
|------|-----|---|--|----|----|---------------------|
| S200 | 23  | (saiki.in. or shintoku.in. or baba.in. or<br>shimo.in. or murase.in. or yamaguchi.<br>in. or yamashita.in.) and (polyamide<br>and titanium and resin).clm.  | US-PGPUB;<br>USPAT;<br>USOCR; EPO;<br>JPO; DERWENT | OR | ON | 2011/01/10<br>14:53 |
| S201 | 6   | (saiki.in. or shintoku.in. or baba.in. or shimo.in. or murase.in. or yamaguchi. in. or yamashita.in.) and (polyamide and titanium and resin and silane).  | US-PGPUB;<br>USPAT;<br>USOCR; EPO;<br>JPO; DERWENT | OR | ON | 2011/01/10<br>14:53 |
| S202 | 542 | 106/400.ccls.   | US-PGPUB;<br>USPAT;<br>USOCR; EPO;<br>JPO; DERWENT | OR | ON | 2011/01/10<br>14:55 |
| S203 | 226 | 508/108.ccls.   | US-PGPUB;<br>USPAT;<br>USOCR; EPO;<br>JPO; DERWENT | OR | ON | 2011/01/10<br>14:55 |
| S204 | 540 | 525/104.ccls.   | US-PGPUB;<br>USPAT;<br>USOCR; EPO;<br>JPO; DERWENT | OR | ON | 2011/01/10<br>14:55 |
| S205 | 215 | 525/180.ccls.   | US-PGPUB;<br>USPAT;<br>USOCR; EPO;<br>JPO; DERWENT | OR | ON | 2011/01/10<br>14:55 |
| S206 | 763 | 525/184.ccls.   | US-PGPUB;<br>USPAT;<br>USOCR; EPO;<br>JPO; DERWENT | OR | ON | 2011/01/10<br>14:55 |
| S207 | 9   | (S202 S203 S204 S205 S206) and (PTFE or polytetrafluorethylene) and ("tiO.sub.2" or "TiO2" or titania or titanium near oxide or titanium near dioxide) with (powder or particle or particulate or grain) and silane   | US-PGPUB;<br>USPAT;<br>USOCR; EPO;<br>JPO; DERWENT | OR | ON | 2011/01/10<br>14:55 |

## 1/10/2011 2:55:37 PM

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